

Postdoctoral Scientist

Gloucester Marine Genomics Institute, Gloucester, MA

Gloucester Marine Genomics Institute (GMGI) is an exciting new independent marine biotechnology research institute that is applying innovative genomic technologies to marine science for discoveries that impact fisheries and human health. One area of focus is developing genomic and genetic tools to advance marine animal models for biomedical research. GMGI is looking for a postdoctoral level scientist to contribute to our ongoing work using sea urchins as models to study aging and resistance to cancer. The goal of this project is to use “omics” technologies to identify key genes and cellular pathways involved in long-term maintenance of tissue homeostasis, tissue regeneration and genome stability, and will involve the development of functional genomic tools for sea urchins. The ideal candidate will have a background in Molecular Biology and/or Cell Biology and experience generating and analyzing genomic and transcriptomic data. Experience using standard molecule biology techniques including molecular cloning and genome editing using CRISPR/Cas, as well as standard cell culture techniques are required. Experience working with sea urchins or other marine models is highly desirable.

Responsibilities:

- Maintain and manipulate sea urchin embryos and adults
- Isolate DNA and RNA for genomics and transcriptomics analysis using standard bioinformatics tools
- Cloning sea urchin genes into expression cloning systems and developing tools for genome editing using CRISPR/Cas
- Optimize conditions for derivation, maintenance and propagation of sea urchin cells *in vitro*
- Optimize transfection (or transduction) protocols to manipulate sea urchin cells
- Lead and contribute to scientific journal articles
- Present results at scientific conferences
- Assist in grant writing and fund-raising efforts for the institution
- Give presentations to a variety of audiences, including donors and general public
- Contribute to GMGI's commitment to create a scientific community on Cape Ann
- Supervise technical staff and interns

Qualifications:

- PhD, or equivalent post-graduate experience in molecular biology, cell biology, biochemistry or a related field.
- Knowledge and experience handling and manipulating sea urchins or other research models
- Experience generating and analyzing next generation sequencing data

- Experience in molecular cloning and genome editing
- Experience with cell culture techniques including ability to genetically manipulate cultured cells
- Strong computational skills and experience with standard bioinformatic and statistic software packages
- Knowledge of commonly used languages for biological data analysis (e.g. Python, R)
- Strong publication record and ability to conduct innovative, high-quality research
- Excellent communication and teamwork skills
- Demonstrated record of leadership, integrity and flexibility
- Enthusiasm and commitment to GMGI's mission for science and education

This position requires the desire, persistence and ability to work in a start-up environment and to help build a transformative research institute.

This position will report to the Science Director

Job Type: full-time for 2 years

Salary: commensurate with experience

Benefits: yes

Posting Expires: when position is filled

How to Apply: Please send a cover letter and curriculum vitae to Andrea Bodnar

andrea.bodnar@gmgi.org

About GMGI

Gloucester Marine Genomics Institute (GMGI) is an independent marine biotechnology research institute. Founded in 2013 by three prominent scientist entrepreneurs, with legendary experience in the biotechnology field, GMGI is positioned to influence a new era of discovery and innovation in marine science.

It is envisioned that GMGI will evolve into an eminent research institute focused on using the power of genomics and other “omics” technologies to promote sustainable fisheries and uncover new discoveries in biomedicine and biotechnology. These new opportunities will enable formation of startup companies, leveraging any resulting intellectual property and innovations, and produce a powerful economic driver that will sustain the future Cape Ann economy and offer the region's citizens exciting new career paths. In addition, GMGI has launched a biotechnology training academy and is committed to establishing beautiful Cape Ann as a world-class science hub.